

CLAIMS

1. A method of manufacturing an impeller comprising the steps of:

- (a) forming an impeller having a plastic disc body and magnetisable material distributed and encapsulated within said body;
- 5 (b) testing the imbalance of said impeller;
- (c) removing plastic material from said impeller to compensate for said tested imbalance;
- (d) magnetising said magnetisable material to have an annular array of alternating poles.

10 2. A method as claimed in claim 1 wherein said step of forming said impeller comprises the steps of:

(a)(i) locating a ring of magnetisable material in an injection mould, including centrally locating said ring by engaging an outer surface thereof at spaced locations around said surface;

15 (a)(ii) locating a shaft centrally within said mould, passing through said ring, such that said shaft and said ring have a common axis of rotational symmetry; and

(a)(iii) injecting plastic into said mould to encapsulate said ring of magnetisable material and span between said ring and said shaft;

(a)(iv) extracting said impeller from said mould.

20 3. A method as claimed in claim 2 wherein forming said impeller includes the additional steps of:

(a)(v) forming an annular plastic cap having a lower face and an array of impeller vanes distributed around and extending from said lower face; and

25 (a)(vi) securing said cap to an upper face of said disc by connecting the free ends of said vanes to said upper face.

4. A method as claimed in claim 1 wherein said step of testing for imbalance includes testing for static imbalance and dynamic imbalance, and said step of compensating for

imbalance includes removing plastic material at at least two axially separated locations on the periphery of said disc.

5. A method as claimed in claim 3 wherein said step of testing for imbalance includes testing for static imbalance and dynamic imbalance, and said step of compensating for imbalance includes removing plastic material at at least one location on said disc and at least one location on said cap.

6. An impeller manufactured according to the method of any one of claims 1 to 5.